BRITISH COLUMBIA SYSTEMS CORPORATION ANNUAL REPORT

BCSC

British Columbia Cataloguing in Publication Data

---

British Columbia Systems Corporation.
British Columbia Systems Corporation annual report.
1981/82. —

---

Report year ends March 31st.
Continues: British Columbia Systems Corporation.
Annual report. ISSN 0710-846X

1. British Columbia Systems Corporation - Periodicals.
2. British Columbia - Executive departments - Management - Data processing - Periodicals.
3. Administrative agencies - British Columbia - Management - Data processing - Periodicals. I. Title.

JL429.5.A8B74 354.711000285

**Province of British Columbia**

Ministry of Finance

Parliament Buildings
Victoria, B.C.
British Columbia
V8V 1X4

OFFICE OF THE MINISTER

29th June, 1983

The Honourable Henry P. Bell-Irving, D.S.O., O.B.E., E.D.,
Lieutenant-Governor of the Province of British Columbia

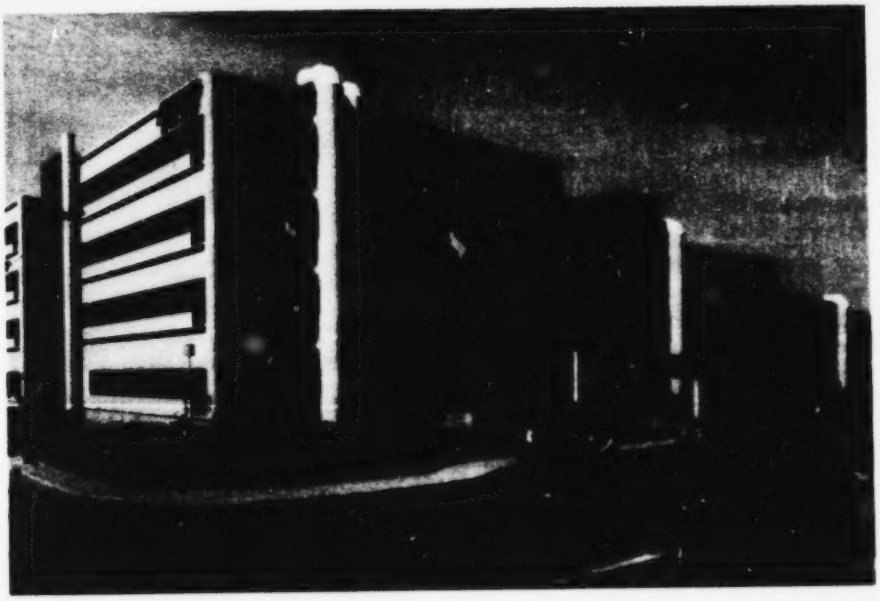
May it please your Honour:

The Annual Report of the British Columbia Systems Corporation for the fiscal year 1982/1983 is herewith respectfully submitted.

Honourable Hugh A. Curtis

# Highlights - 1982-83

- Corporate revenues reach $64,984,000.
- New corporate building constructed within schedule and budget constraints, occupied as of April, 1983.
- IMS interactive transactions increase by 29.5%, from 129,000 per day to 167,000 per day.
- New Client Services Division created to provide focal point for interface with clients.
- Revenue per employee increases by 19.4% to $109,960.



## Corporate Headquarters

4000 Seymour Place
Victoria, British Columbia
V8X 4S8

## Vancouver office

601 West Broadway
Vancouver, British Columbia
V5Z 4C2

## Auditors

Clarkson, Gordon
*Chartered Accountants*
*Victoria, British Columbia*

## Officers

W.L. STAPLETON
*President and Chief Executive Officer*

N.E. GLASSEL
*Vice-President, Information Services*

J.K. KUSS
*Vice-President, Systems Development*

R.A. SKENE
*Vice-President, Finance and Administration*
*Secretary to the Board*

C.D. SLADE
*Vice-President, Distributed Systems*

D.H. WILLIAMS
*Vice-President, Client Services*

# Board of Directors

C.R.M. SMITH ■●
*President and Chief Operating Officer*
*McGavin Foods Limited*
*Vancouver, British Columbia*
*Chairman of the Board*

L.I. BELL ■+
*Deputy Minister of Finance*
*Province of British Columbia*
*Victoria, British Columbia*

K.R. BROWES +
*President*
*Tripar Developments*
*Vancouver, British Columbia*

HONOURABLE HUGH A. CURTIS ★
*Minister of Finance*
*Province of British Columbia*
*Victoria, British Columbia*

G.A. FIERHELLER ■●★
*President and Chief Executive Officer*
*Premier Cablesystems Limited*
*Vancouver, British Columbia*

B. SANGSTER ■●★
*Consulting Partner*
*Deloitte, Haskins, and Sells*
*Vancouver, British Columbia*

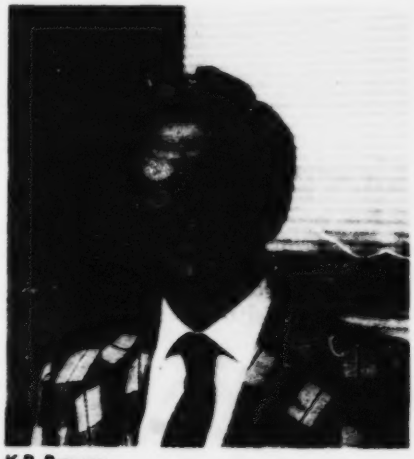
W.L. STAPLETON ■★+
*President and Chief Executive Officer*
*British Columbia Systems Corporation*
*Victoria, British Columbia*

## Committees of the Board

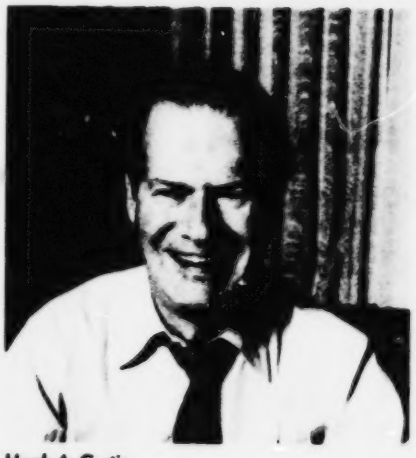
- ■ Executive Committee
- ● Audit Committee
- ★ Compensation Committee
- + Building Committee

C.R.M Smith

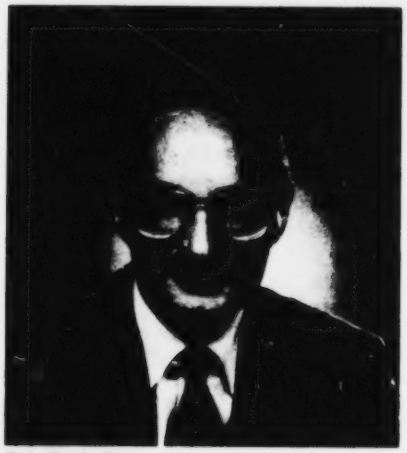
L.I. Bell



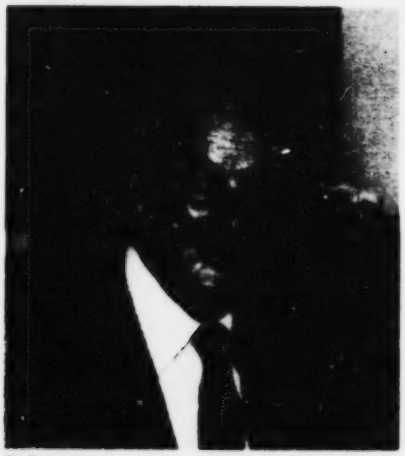
K.R. Browes



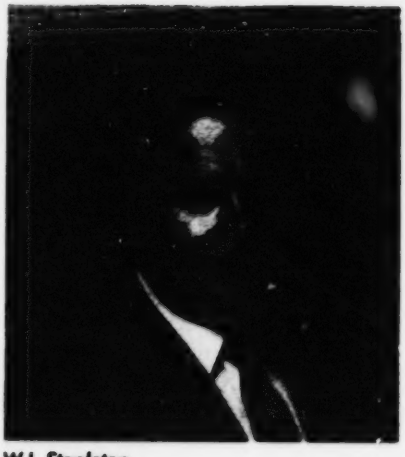
Hugh A. Curtis



G.A. Fierheller



B. Sangster



W.L. Stapleton

# Report from the Chairman

The Corporation completed its first five years of operation during the 1982/83 fiscal year. In that time BCSC has undertaken a number of activities which have improved data processing systems within the Provincial Government. The rationalization of computer equipment in various Ministries, Agencies, Crown Corporations and Commissions; the implementation of standards; the introduction of methodologies for undertaking systems development projects; the establishment of a province-wide data communications network; the comprehensive management of data resources; and the application of modern computer technology to the identification, care and control of our provincial natural resources, are some of the initiatives nurtured and developed in the five-year time frame.

Certainly the most long-standing and important effort and success of the Corporation has been the training and encouraging of a highly dedicated group of professionals able to work effectively at matching the requirements of Government to the capabilities of data processing technology.

Our initial efforts have seen BCSC establish a solid foundation for the activities to be undertaken in the next five-year phase.

I would like to take this opportunity, on behalf of the Board, to thank BCSC's past President, Mr. D.A. Alexander, for the many contributions to BCSC's achievements made during his tenure.

To lead BCSC into its next major phase, the Board has elected Mr. W.L. Stapleton as President. Mr. Stapleton's experience in government and industry will be of great assistance in leading BCSC toward new and innovative support for the needs of BCSC's clients.

One of his first actions has been to restructure BCSC to permit it to offer a wider range of products and services to its clients, and to increase opportunities for Government data processing work to be undertaken by the private sector. The results of this restructuring will increase the range of options available with regard to solutions to data processing problems. This in turn will significantly contribute to improving productivity for our customers — a key objective.

As BCSC enters this next phase, the most difficult task for us will be to continue to improve the quality and quantity of services offered as we cope with necessary fiscal restraint. I feel confident that the employees of our Corporation will meet this challenge, as they have met challenges heretofore, with cost-effective action resulting in an improved working environment for our current and future business partners.

C.R. Mallory Smith
Chairman of the Board of Directors

# Report from the President

During the 1982/83 fiscal year the rate of growth in our clients' demand for the Corporation's services continued its significant downturn as a result of the depressed economic climate. Corporate revenues grew to $64,984,000, an increase of 12 percent over 1981/82 revenues. This, however, represents a sharp drop from the 1981/82 growth rate of 18 percent. Corporate net income fell significantly from a 1981/82 growth level of $2,676,000 to $20,000 for 1982/83 in spite of a stringent and comprehensive internal restraint program. As a further reflection of the reduced growth in demand for services, the Corporation permitted its staff count to decrease from 631 to 591 during the fiscal year.

A major Corporate undertaking, the construction of new headquarters in the Municipality of Saanich, was nearing completion at the end of the past fiscal period. The facility has been constructed within schedule and budget contraints, and was occupied by the Corporation as of April, 1983. All of the Corporation's Victoria-based staff as well as all central computer and network equipment are accommodated in this facility.

As BCSC enters its second five-year period, I have been given the opportunity to introduce a number of changes in Corporate direction and structure that will improve the Corporation's ability to meet the current and future needs of its clients. A new organizational format has been introduced to address six key corporate objectives:

1. To improve client interfaces through a new Client Services Division.
2. To ensure that clients receive cost-effective data processing solutions.
3. To improve the range and quality of the products and services offered by the Corporation, consistent with the continuing trend toward merging computer and communications technology.
4. To have the ability to respond to rapidly changing technology.
5. To provide strategic systems planning as a top priority for all corporate clients.
6. To optimize the Corporation's cost structure and productivity.

These objectives will be undertaken by five BCSC divisions. We list them here, along with their primary responsibilities:

**Client Services Division:**
*Responsible for advising Corporate clients on the use of information systems, and for coordinating BCSC's business relationship with its clients.*

**Information Services Division:**
*Responsible for providing the services of BCSC's mainframe host computer and its communications networks.*

**Distributed Systems Division:**
*Responsible for providing distributed and decentralized systems, including minicomputers, microcomputers, and office automation systems.*

**Systems Development Division:**
*Responsible for systems development services.*

**Finance and Administration Division:**
*Responsible for providing support services within the Corporation.*

The new Client Services Division (CSD) is the focal point of our interface with our clients — our means of ensuring that clients are satisfied with BCSC services. The Division also functions as an advisory group to clients and, where appropriate, assists with the evaluation of alternate solutions to data processing problems.

We believe that sound planning forms the basis for cost-effective information systems. A major responsibility for the Client Services Division, therefore, will be to promote the concept of information systems planning and, if necessary, to provide resources to assist clients with this activity. The work of Client Services is a significant component of the total service provided to government and clients by BCSC.

The new Distributed Systems Division (DSD) has been given the responsibility for developing and supporting products and services in the minicomputer and microcomputer areas — areas that are relatively new to BCSC. The Division will be setting up demonstration facilities that will help clients to evaluate new developments in these rapidly changing technologies. The Division will also provide the resources and expertise necessary to support the installation of a range of distributed and decentralized computer systems.

The Systems Development Division (SDD) and the Information Services Division (ISD) will continue to provide the basic services for which BCSC has been known in the past: systems development and large-scale host computer operations. They will, however, begin to be delivered in a more cost-effective and productivity-conscious manner. The Systems Development Division will begin to apply new methodologies and tools for systems development. Systems will be delivered to our clients more quickly, at lower cost and with fewer maintenance constraints.

The Information Services Division will be introducing a range of products and services associated with the Information Centre concept. These products and services will permit clients to develop small, non-critical applications without the need for professional analysts or programmers.

The products and services provided by the three operating divisions (ISD, DSD, and SDD) will represent the total range of current technology: from formal, traditional systems development activity to informal end-user development capabilities; from very-large-scale centralized computers to desktop microcomputers. BCSC will be able to offer its clients a broad spectrum of practical alternate solutions to any information-related problem. To deliver this broad spectrum of choices, the Corporation will provide high quality support for a selected set of representative offerings — rather than attempt to support all available products and services.

To further broaden the choice of products and services open to our clients, and to ensure that government implements the most

cost-effective solutions, the Corporation, where appropriate, will offer solutions to client problems in competition with solutions tendered by private sector suppliers through the Client Services Division. This range of choice will not only benefit all clients directly but will also enable the Corporation to strengthen its service offerings as a result of comparative analysis. With the assistance of the Client Services Division, clients will be able to select the most appropriate, most cost-effective solutions that are consistent with the government-wide objective of rationalizing data processing expenditures.

Finally, to support and further enhance these new programs, and to plan future programs of the Corporation, we intend to seek actively the views of our clients, of the private sector, and of government central agencies. We believe that a representative perspective is necessary to ensure that the Corporation's activity remains relevant to the needs of its clients.

I am confident that the direction we have established for the second five-year phase of BCSC's existence will meet the needs of our clients now and in the future.

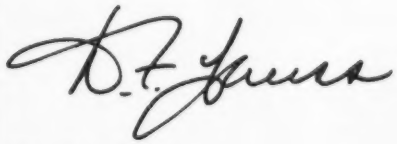
W.L. Stapleton
President and Chief Executive Officer

# A Message from the Chairman of the User Review Committee

I am pleased to report that the User Review Committee has continued to work actively in providing advice and assistance to the Corporation on a broad range of important issues. The past fiscal year was one of transition and achievement for BCSC, and the Committee wishes to acknowledge formally its appreciation for a number of new initiatives sponsored by the Corporation. Principal among these initiatives are the organizational changes, particularly the estblishment of a new Client Services Division and the increased emphasis on distributed data processing systems.

During the year, the Committee and the Corporation co-sponsored a report to the Treasury Board on the approval process for systems projects. The Committee also provided constructive input on such matters as the Corporation's operating performance, standards, and client services success factors.

On behalf of the Committee, I also wish to acknowledge the renewed spirit of cooperation and communication that has emanated from the Corporation during the past year. This, combined with the organizational changes now in place, will contribute significantly to an enhanced business relationship between the Corporation and its clients. The Committee's meetings have been characterized by a high level of commitment and participation, and this has contributed significantly to its accomplishments in the past year. I would like to express my sincere thanks to the Committee members and to the Corporation for their respective contributions and to extend my best wishes for continued success.



Dennis F. Truss
Chairman, User Review Committee.

# Review of Operations

Two major changes — reorganization and relocation — made 1982/1983 a significant milestone for the Corporation. The consolidation of the Services Systems Development Division and the Administrative Systems Development Division into a single, more functionally-oriented Systems Development Division has resulted in a 35 percent reduction in management staff numbers in the systems development area. Each Department within the new Division retains its responsibility for an assigned set of client systems, but also contains units that specialize in developing and maintaining systems for specific technologies and applications specialities. Examples include minicomputer-based systems, and mapping and graphics systems. This specialization by function assures that the Corporation will be flexible and responsive in supporting its expanded range of products and services.

*'BCSC's control centre'*

Staff and equipment from nine Victoria locations were consolidated at the new Seymour Place building, which the Corporation officially occupied April 1, 1983. We expect significant long-term economies in the costs of work space, transportation, and communication to result. Other intangible benefits in morale and access to corporate resources are expected to contribute to productivity. The relocation of the Data Centre from Davidson Street to the Seymour building involved the efforts of 150 staff members at various times. A major planning effort culminated in a successful move that began Thursday, March 31, and was completed Monday, April 4th, with virtually no effect on service to clients. Other changes were made to the Data Centre in response to changes in the needs of clients and in the computing workload. An example is the addition of eight megabytes of memory to the 3081D processor. This made it possible to make the Corporation's IMS service more reliable by moving it to the 3081D, where it can be run in an environment isolated from other services. IBM 3380 high-performance disk drives replaced an STC 4305 drum system to increase the responsiveness of on-line interactive services, for which demand continues to grow. IMS interactive transactions grew from 129,000 per day in March, 1982, to 167,000 per day in March,

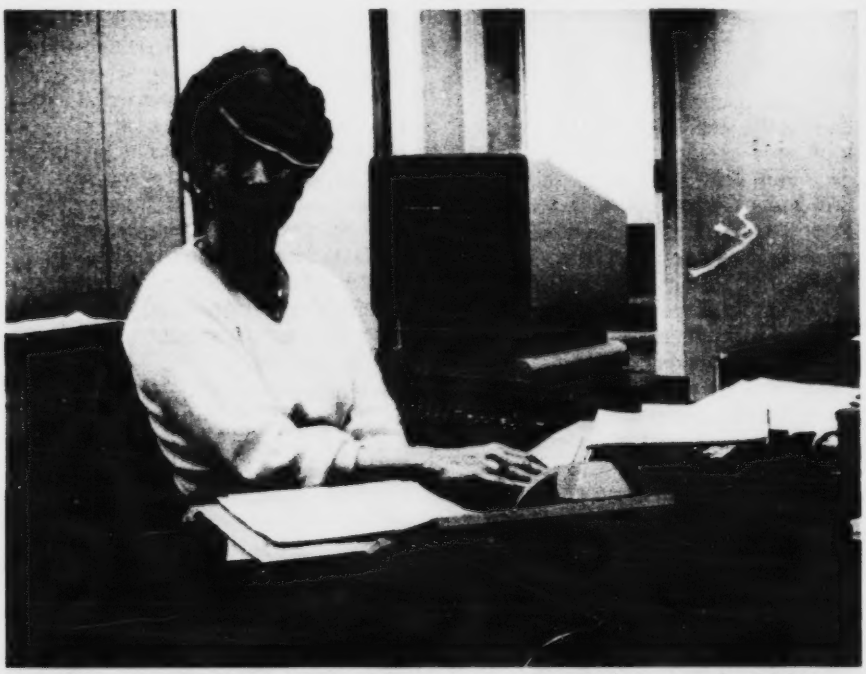
1983, an increase of 29.5 percent. At the Vancouver office, four high-speed printers were installed, primarily to print Income Assistance cheques for the Ministry of Human Resources.

The Corporation's Shared Data Network has expanded during the year by the addition of Regional Network Centres at Nelson and Terrace, bringing the number of Centres to seven. To improve access to host computer services for Vancouver clients, three high-speed lines were installed between Vancouver and Victoria, and a second remote communications controller was added at Vancouver. In response to a Motor Vehicles Branch application, BCSC's host computers were linked to the ICBC computer centre in Vancouver. This link permits Motor Vehicle Branch terminals throughout the province to access both BCSC and ICBC computers.

The Corporation completed numerous systems development projects during the year. Here are some major examples:

- A major on-line trust accounting system for the Office of the Public Trustee. Local institutional records systems were developed for the Lower Mainland Regional Correctional Centre and the Vancouver Pre-Trial Service Centre. Authorities can access the local records on an IBM 8100 distributed processing system and access historical information on BCSC host computers.
- A major redevelopment of the claims processing systems of the Health Ministry's Medical Services Plan. This project has eliminated outdated equipment and significantly improved staff productivity and service levels.
- A new system that supports the B.C. Housing Loan program of the Ministry of Lands, Parks, and Housing. This system was implemented not only within budget but within the severe time constraints imposed by the application-processing schedule.
- A new bi-weekly payroll system that produces pay cheques and maintains personnel information for the entire public service. It was implemented on schedule in January, 1983, for the Ministry of Finance.
- The conversion of all systems within the Liquor Distribution Branch to the Canadian Standard Product Code for liquor identification.
- The implementation of the Management Sciences of America (MSA) financial control system for the Ministry of Human Resources.
- A system for validating the registration of Income Assistance clients, implemented on a pilot-project basis for the thirteen Lower Mainland offices of the Ministry of Human Resources. Improved control of payments and significant savings in staff time have resulted. During the year the Income Assistance payment system was transferred to BCSC from ICBC computers, a move that will reduce processing costs and permit better

*Designed for productivity, the new facility puts all employees close to natural light, and groups them in functional units called pods. Significant economies in transportation and communication are expected from having all Victoria staff and equipment under one roof.*



*High-efficiency secretarial work station includes word-processing and electronic mail capabilities. Pre-wired floor permits the rapid movement of phone, power, and computer outlets when necessary.*

*A staff member loads a tape drive in the raised-floor section of the new facility, engineered to permit great flexibility in the movement and location of equipment.*

*BCSC's Info Centre, now in its new Seymour Place quarters, provides clients with access to terminals and microcomputers to develop programming and to familiarize themselves with new equipment.*

coordination with the Ministry's other system.

- The implementation of CAPAS (Computer Assisted Property Assessment System) for the British Columbia Assessment Authority (BCAA). CAPAS is a very large system; its peak volumes of 40,000 on-line transactions per day were the largest of any system operated by BCSC during the year. CAPAS terminals function at 27 locations around the province — more than any other BCSC system. CAPAS, which uses BCSC standard hardware, software, and data base products exclusively, immediately moved BCAA into the front rank of the world's jurisdictions in the automation of property assessment. The Corporation is pleased to have been of significant assistance in this major project.

During the year the Corporation took several steps to prepare for the growth in distributed processing and end-user computing that will extend throughout its client base in the next few years. End User Computing, as now distinguished from Formal Development, now benefits from the support of the same resources as Formal Development. This includes the new Development Support Centre, created to improve the systems development techniques used by BCSC's substantial force of analysts and programmers. Tools such as a software inventory, technical manual index, and project worksheets are provided on-line. The Corporation's Info Centre was expanded to assist end users to develop their own programs on minicomputers and microcomputers as well as on mainframe computers.

To assist clients to familiarize themselves with minicomputer hardware before its installation, and to minimize the risk of making a wrong hardware selection, the Corporation has developed a "test bed" program in which sample minicomputers are installed and support teams provided. Courses in the use of microcomputers were made available in Victoria and in other centres.

Re-evaluation of the Corporation's financial arrangements for the use of computing hardware resulted in substantial reductions in equipment costs. A new long-term lease for BCSC's 3081D and 3081K processors will produce significant savings, as will the purchase of a variety of leased equipment.

During the past few months of the fiscal year the new Client Services Division began to assume responsibility for handling the business relationship between clients and the Corporation's service divisions. The Client Services Division provides advice to clients on their data processing service needs, with particular focus on the development of a range of information systems plans, to ensure that value is received for money expended. Staffing for the new Division commenced in January 1983 and heavy emphasis has been placed on the selection of highly trained and experienced management personnel from within the Corporation.

A further step toward enhanced business relationships occurred with the introduction of Client Agreements. On July 21, 1982 the Lieutenant Governor in Council approved the form and terms of Master Agreements relating to Systems Development, Data Processing Services, and the Rental of Data Processing Systems. These documents provide a mutual understanding as to the ways and means related services are provided to clients by the Corporation.

# Auditors' Report

*British Columbia Systems Corporation (Incorporated as a Crown Corporation under the System Act R.S.B.C. 1979)*

The Honourable Hugh A. Curtis,
*Minister of Finance,*
*Province of British Columbia:*

*We have examined the balance sheet of British Columbia Systems Corporation as at March 31, 1983 and the statements of income and retained earnings, and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.*

*In our opinion, these financial statements present fairly the financial position of the Corporation as at March 31, 1983 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied, except for the change in the method of depreciating certain computer equipment as explained in note 9 to the financial statements, on a basis consistent with that of the preceding year.*

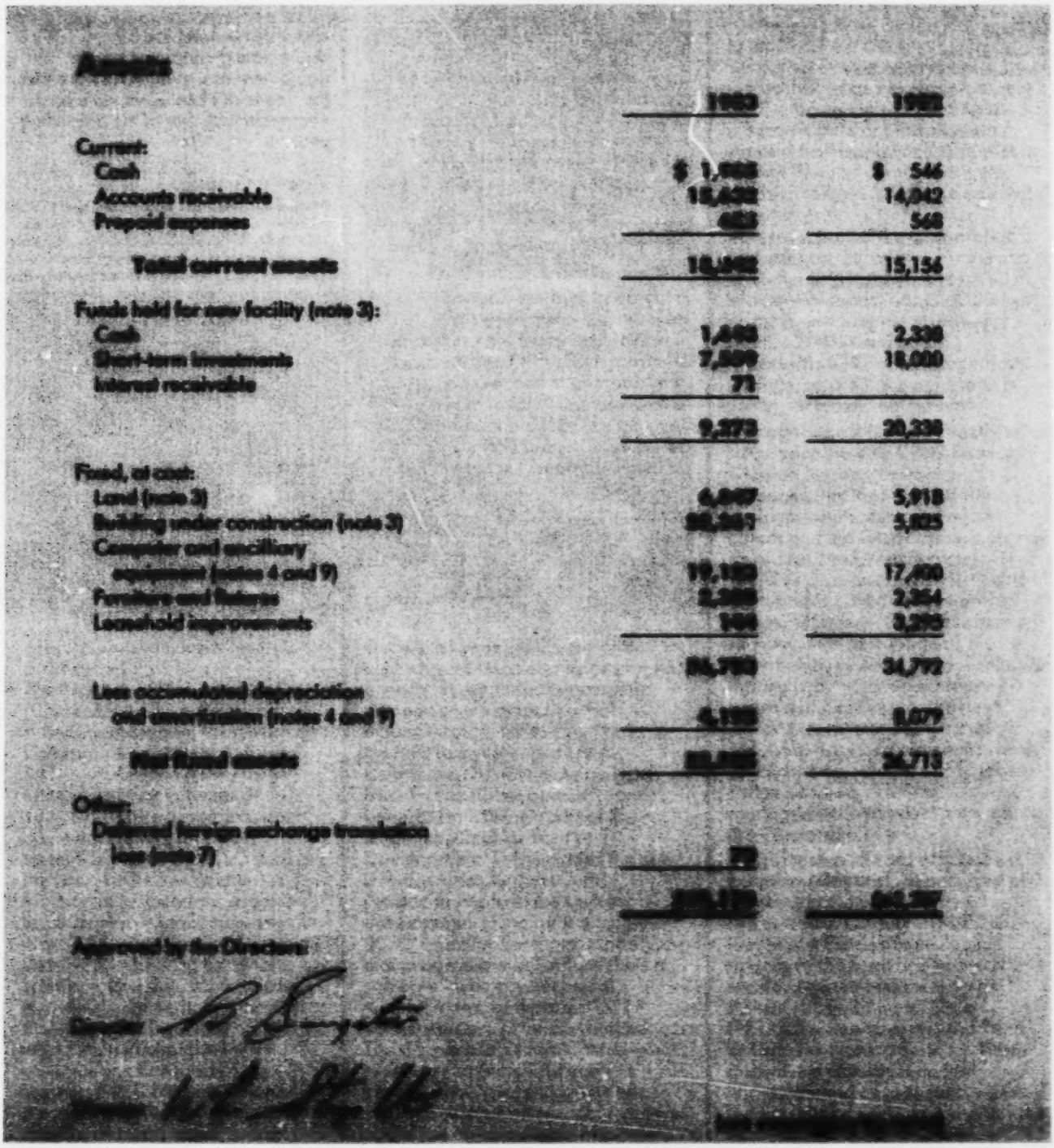
*Victoria, Canada.*
*May 25, 1983.*

Clarkson Gordon

*Chartered Accountants*

# Balance Sheet March 31, 1983 (000's)

*British Columbia Systems Corporation (Incorporated as a Crown Corporation under the System Act R.S.B.C. 1979)*



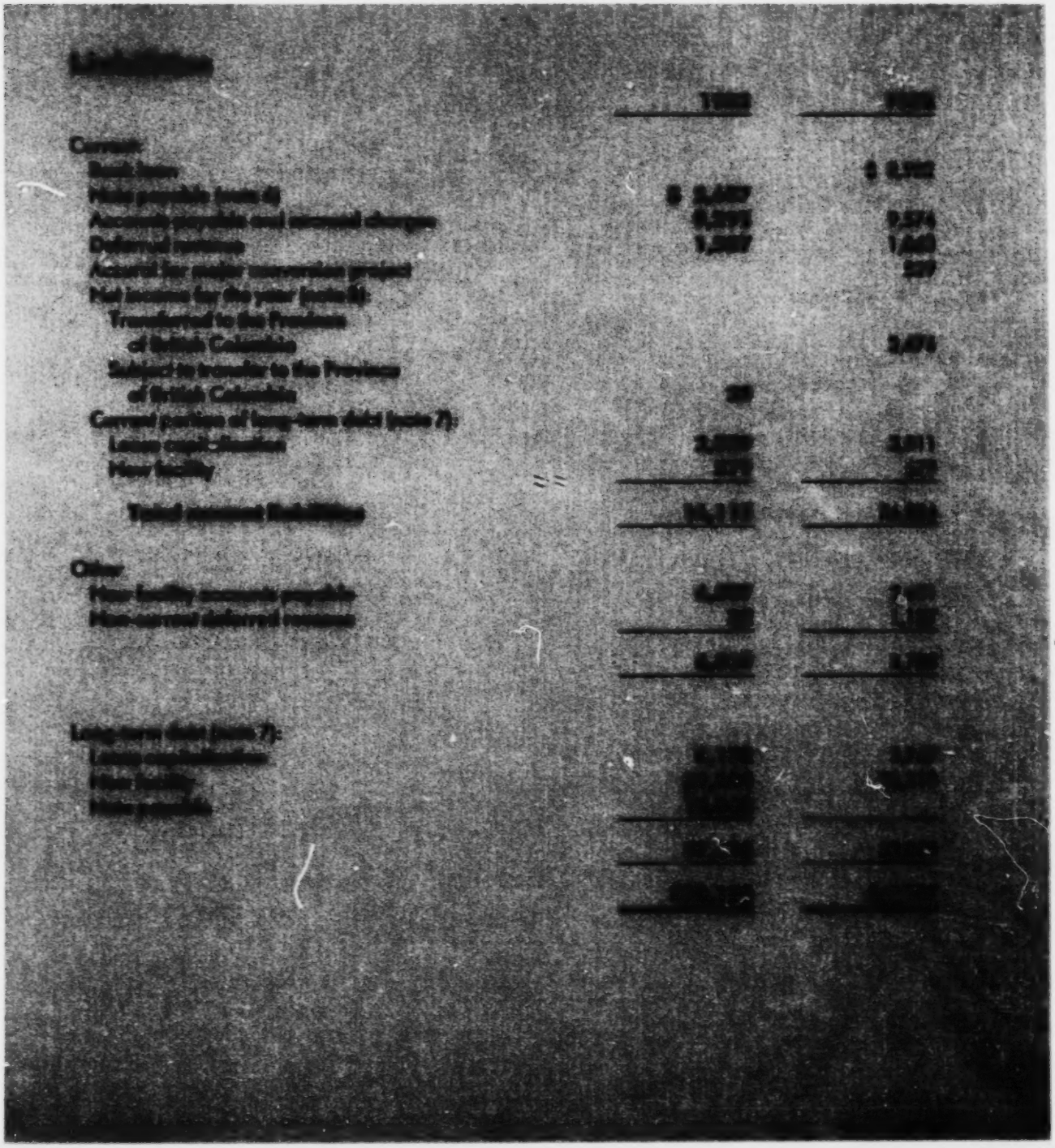
**Assets**

| | 1983 | 1982 |
|---|---|---|
| **Current:** | | |
| Cash | $ 1,958 | $ 546 |
| Accounts receivable | 15,452 | 14,042 |
| Prepaid expenses | 482 | 568 |
| **Total current assets** | 18,592 | 15,156 |
| **Funds held for new facility (note 3):** | | |
| Cash | 1,602 | 2,338 |
| Short-term investments | 7,599 | 18,000 |
| Interest receivable | 71 | |
| | 9,272 | 20,338 |
| **Fixed, at cost:** | | |
| Land (note 3) | 6,807 | 5,918 |
| Building under construction (note 3) | 88,369 | 5,825 |
| Computer and ancillary equipment (notes 4 and 9) | 19,150 | 17,490 |
| Furniture and fixtures | 2,288 | 2,264 |
| Leasehold improvements | 198 | 3,295 |
| | 116,792 | 34,792 |
| Less accumulated depreciation and amortization (notes 4 and 9) | 6,158 | 8,079 |
| **Net fixed assets** | 88,805 | 26,713 |
| **Other:** | | |
| Deferred foreign exchange translation loss (note 7) | 72 | |
| | 98,170 | 62,207 |

Approved by the Directors:

Director

Director



# Balance Sheet March 31, 1983 (000's)

*British Columbia Systems Corporation (Incorporated as a Crown Corporation under the System Act R.S.B.C. 1979)*

## Assets

| | 1983 | 1982 |
|---|---|---|
| Current: | | |
| Cash | $ 1,985 | $ 546 |
| Accounts receivable | 15,632 | 14,042 |
| Prepaid expenses | 625 | 568 |
| **Total current assets** | 18,242 | 15,156 |
| Funds held for new facility (note 3): | | |
| Cash | 1,643 | 2,338 |
| Short-term investments | 7,559 | 18,000 |
| Interest receivable | 71 | |
| | 9,273 | 20,338 |
| Fixed, at cost: | | |
| Land (note 3) | 6,847 | 5,918 |
| Building under construction (note 3) | 28,361 | 5,825 |
| Computer and ancilliary equipment (notes 4 and 9) | 19,123 | 17,400 |
| Furniture and fixtures | 2,308 | 2,354 |
| Leasehold improvements | 144 | 3,295 |
| | 56,783 | 34,792 |
| Less accumulated depreciation and amortization (notes 4 and 9) | 4,198 | 8,079 |
| **Net fixed assets** | 52,585 | 26,713 |
| Other: | | |
| Deferred foreign exchange translation loss (note 7) | 70 | |
| | $80,170 | $62,207 |

Approved by the Directors:

Director

Director

(see accompanying notes)

## Liabilities

| | 1983 | 1982 |
|---|---|---|
| Current: | | |
| Bank loan | | $ 8,902 |
| Note payable (note 6) | **$ 2,687** | |
| Accounts payable and accrued charges | **9,293** | 9,574 |
| Deferred revenue | **1,507** | 1,063 |
| Accural for major conversion project | | 529 |
| Net income for the year (note 8): | | |
| Transferred to the Province of British Columbia | | 2,676 |
| Subject to transfer to the Province of British Columbia | **20** | |
| Current portion of long-term debt (note 7): | | |
| Lease capitalization | **2,029** | 3,011 |
| New facility | **579** | 579 |
| **Total current liabilities** | **16,115** | 26,334 |
| Other | | |
| New facility accounts payable | **6,507** | 2,651 |
| Non-current deferred revenue | **32** | 1,137 |
| | **6,539** | 3,788 |
| Long-term debt (note 7): | | |
| Lease capitalization | **8,132** | 3,767 |
| New facility | **39,384** | 28,318 |
| Note payable | **10,000** | |
| | **57,516** | 32,085 |
| | **$80,170** | $62,207 |

# Statement of Income and Retained Earnings

*British Columbia Systems Corporation (Incorporated as a Crown Corporation under the System Act R.S.B.C. 1979)*

For the Year Ended March 31, 1983
(000's)

| | 1983 | 1982 |
|---|---|---|
| Revenue: | | |
| Processing | **$31,142** | $27,747 |
| System design and programming | **19,050** | 19,799 |
| Equipment rental | **9,879** | 7,484 |
| Direct expenses recovered from clients | **4,334** | 1,411 |
| Interest and other income | **579** | 1,487 |
| **Total revenue** | **64,984** | 57,928 |
| Expenses: | | |
| Employee | **22,716** | 22,017 |
| Equipment rental and maintenance | **19,503** | 12,252 |
| Services purchased for clients | **9,851** | 11,011 |
| Administrative and general | **8,151** | 5,908 |
| Depreciation and amortization (notes 4 and 9) | **3,636** | 4,146 |
| Interest on long-term debt | **1,107** | 628 |
| Provision for major conversion project | | (710) |
| **Total expenses** | **64,964** | 55,252 |
| **Net income for the year** | **20** | 2,676 |
| Retained earnings, beginning of the year | NIL | NIL |
| Net income subject to transfer to the Province of British Columbia pursuant to Section 8(5) of the System Act (note 8) | **20** | 2,676 |
| Retained earnings, end of the year | **NIL** | NIL |

**(see accompanying notes)**

# Statement of Changes in Financial Position

*British Columbia Systems Corporation (Incorporated as a Crown Corporation under the System Act R S B C 1979)*

For the Year Ended March 31, 1983
(000's)

| | 1983 | 1982 |
|---|---|---|
| Source of working capital: | | |
| Operations - | | |
| Net income for the year | **$ 20** | $ 2,676 |
| Add items not affecting working capital: | | |
| Depreciation and amortization | **3,636** | 4,146 |
| Deferred foreign exchange translation loss | **18** | |
| **Total from operations** | **3,674** | 6,822 |
| Drawdown of funds held for new facility less related amounts payable | **14,921** | |
| Increase in non-current deferred revenue | | 1,137 |
| Additions to long-term debt (net of current portion) | **29,715** | 34,168 |
| Proceeds on disposition of equipment | **2,340** | 331 |
| Effect on working capital of discontinuance of capitalized leases | **574** | |
| **Total source of working capital** | **51,224** | 42,458 |
| Application of working capital: | | |
| Reduction of non-current deferred revenue: | **1,105** | |
| Investment of funds held for new facility less related accounts payable | | 17,687 |
| Additions to fixed assets | **35,918** | 19,599 |
| Long-term debt reductions | **876** | 5,562 |
| Certificate redemption | | 10,000 |
| Net income subject to transfer to the general revenue of the Province of British Columbia (note 8) | **20** | 2,676 |
| **Total application of working capital** | **37,919** | 55,524 |
| Increase (decrease) in working capital | **13,305** | (13,066) |
| Working capital (deficiency), beginning of the year | **(11,178)** | 1,888 |
| **Working capital (deficiency), end of the year** | **$ 2,127** | $(11,178) |

(see accompanying notes)

# Notes to the Financial Statements March 31, 1983

*British Columbia Systems Corporation (Incorporated as a Crown Corporation under the System Act R.S.B.C. 1979)*

## 1. The Corporation

The British Columbia Systems Corporation is incorporatead as a Crown Corporation of the Province of British Columbia under the System Act R.S.B.C. 1979.

The purpose of the Corporation is to establish and implement such policies as it considers appropriate for the consolidation and rationalization of data processing services provided for government entities. To achieve this purpose, the Corporation:

a) provides data processing and related services required for governmental purposes;

b) recommends and implements data processing standards, practices, policies and technical guidelines to facilitate a progressive improvement of information systems required by government entities; and,

c) subject to approval of the Lieutenant-Governor in Council, sets rates for the use of data processing products and services provided to its users.

In 1983 the Corporation received 87% of its revenues from Provincial Government Ministries with the balance from other Government entities.

## 2. Signficant accounting policies

As prescribed by Section 9(6) of the System Act, the financial statements of the Corporation are prepared in accordance with generally accepted accounting principles. Significant accounting policies followed in the preparation of these financial statements are:

a) Fixed assets:

The Corporation leases most of its computer equipment. Certain of these leases, however, transfer the benefits and risks incident to ownership to the Corporation. In such cases, as more fully described in notes 4 and 7, the leases have been capitalized.

The costs of fixed assets are depreciated and amortized over their estimated useful lives as follows:

| | |
|---|---|
| Computer mainframes | — over the terms of the leases (4 to 5 years) on an annuity basis |
| Other computer and ancillary equipment | — over periods ranging up to five years, on a straight-line basis |
| Furniture and fixtures | — over ten years, on a straight-line basis |
| Leasehold improvements | — over terms of leases, on a straight-line basis |

b) Revenue recognition:

Revenue is recognized in the accounts as the services are performed.

c) Expense recognition:

All purchases with the exception of fixed assets and prepaids are expensed in the accounts as incurred.

d) Development costs:

Development costs are expensed in the accounts as incurred.

e) Income taxes:

The Corporation is exempt from Federal and Provincial income taxes.

f) Interest:

The interest on funds borrowed for the new facility (land and building) which is under construction is added to the cost of these assets and interest income from the related temporary investments is deducted from the costs thereof. This capitalization will cease upon completion of construction in May 1983. The interest on general borrowings for other uses is expensed in the period to which it relates.

g) Sinking funds:

Payments made to sinking funds with respect to retirement provisions of the sinking fund debentures will be carried until such time as the debentures are redeemed. Interest earned on the sinking funds is recorded as income.

h) Foreign currency translation:

Debt due in foreign currency is translated to Canadian dollars at the exchange rate prevailing at year end. Any gain or loss on translation is deferred and amortized over the remaining term of the debt, including the current year.

## 3. New facility

The Corporation's new facility, located at 4000 Seymour Place in the District of Saanich, is nearing completion at March 31, 1983 at an approximate total cost including land, design, construction and interest of $37,200,000.

Financing for the new facility has been arranged as detailed in note 7(b). Proceeds from the funds borrowed are held separately or are invested in short-term deposits to be drawn down against expenditures.

## 4. Capitalization of leases

Included in fixed assets is computer equipment recorded at a cost of $10,056,000 (1982 - $8,078,000) arising from the capitalization of certain leases. The related accumulated amortization amounts to $177,000 (1982 - $1,701,000).

## 5. Borrowing authority

Pursuant to section 8(6) of the System Act, the Corporation may be advanced or borrow up to $65,000,000. In computing that amount the aggregate net rentals payable by the Corporation under leases for personal property for a term exceeding one year shall be excluded.

## 6. Note payable

The Corporation arranged a $2,687,000 short-term loan with the Ministry of Finance through the issuance of a note payable Series SC-A at an interest rate of 9.65%. This financing was required for the purchase of certain computer ancillary equipment and is due for repayment on May 30, 1983.

## 7. Long-term debt

a) Lease capitalization:

The minimum annual contractual obligations with respect to capitalized leases are as follows:

| | |
|---|---|
| 1984 | $ 3,042,000 |
| 1985 | 2,747,000 |
| 1986 | 2,746,000 |
| 1987 | 2,742,000 |
| 1988 | 1,734,000 |
| | 13,011,000 |
| Less imputed annual interest at an average rate of 12% per annum | 2,850,000 |
| Capitalized lease obligations | 10,161,000 |
| Less current portion | 2,029,000 |
| Long-term portion | $ 8,132,000 |

b) New facility:

The Corporation, assisted by the Ministry of Finance in its capacity as Fiscal Agent, entered into the following arrangements to finance the new facility:

| | Interest Rate | Maturity Date | Amount |
|---|---|---|---|
| Sinking fund debentures: | | | |
| Canada Pension Plan — Series 1 | 15.69% | 2002 | $14,007,000 |
| Canada Pension Plan — Series 2 | 16.10% | 2002 | 12,500,000 |
| Private placement debt for U.S. $11,400,000, repayable in U.S. dollars (see below) | 16.88% | 1986 | 14,067,000 |
| | | | 40,574,000 |
| Less sinking funds accumulated | | | 611,000 |
| | | | 39,963,000 |
| Less current portion | | | 579,000 |
| Long-term portion | | | 39,384,000 |

The Corporation is required to establish sinking funds with the Ministry of Finance, in such amounts as shall be sufficient to retire the Canada Pension Plan debentures at maturity.

## 7. Long-term debt *(continued)*

The foreign exchange loss on translation of the U.S. dollar debt to Canadian dollars amounted to $88,000 (1982 - Nil) of which $18,000 (1982 - Nil) has been amortized in the current year.

Principal repayments required are as follows:

| | Sinking fund payments | U.S. debt | Total |
|---|---|---|---|
| 1984 | $ 579,000 | | $ 579,000 |
| 1985 | 579,000 | | 579,000 |
| 1986 | 579,000 | $14,067,000 | 14,646,000 |
| 1987 | 579,000 | | 579,000 |
| 1988 | 579,000 | | 579,000 |
| Thereafter | 23,001,000 | | 23,001,000 |
| | $25,896,000 | $14,067,000 | $39,963,000 |

c) Note payable:

The Corporation entered into the following financing arrangements with Victoria and Grey Trust Company:

| Note | Interest rate | Maturity date | Amount |
|---|---|---|---|
| BCSC-1 | 0.75% less than average bank prime; calculated quarterly | 1987 | $10,000,000 |

The Province of British Columbia has unconditionally guaranteed the payment of principal and interest on all long-term debt issued by the Corporation.

## 8. Net income

Pursuant to Section 8(5) of the System Act, amended May 13, 1982, the Lieutenant-Governor in Council may, each fiscal year, on the recommendation of the Minister of Finance, direct the transfer to the government of all or part of the net income for the current year or for previous years to the extent not previously so transferred.

## 9. Changes in accounting policies

During the year, the Corporation re-evaluated its policies for depreciation of computer and ancillary equipment. As a result, the changes detailed below were made. Since by statute, the Corporation had no retained earnings, the cumulative effects of these adjustments are reflected in the current year's results.

a) Computer mainframes

The method of depreciating computer mainframes was changed from the straight-line method to the annuity method. The effect of this change is to increase net income for the year by $30,000.

b) Other computer and ancillary equipment

Due to rapid changes in technology, the estimated useful lives of certain other computer and ancillary equipment were shortened to three years from five years. This change ensures that accumulated depreciation at March 31, 1983 for each item reflects its remaining useful life. The effect of the change is a reduction of net income for the year of $695,000, being $188,000 of additional depreciation for the current year and $507,000 of additional depreciation for prior years.

## 10. Commitments

The Corporation leases some of its premises and computer equipment for periods of up to five years.

The minimum annual contractual obligations of non-cancellable leases are as follows (excluding amounts relating to capitalized leases):

| | | |
|---|---|---|
| 1984 | — | $7,876,000 |
| 1985 | — | $5,001,000 |
| 1986 | — | $3,548,000 |
| 1987 | — | $577,000 |
| 1988 | — | $21,000 |

## 11. Pension and superannuation plans

Until the Corporation establishes a pension or superannuation plan, the Public Service Superannuation Act applies to the Corporation and its officers and employees. The Corporation is obliged to pay into the Public Service Superannuation Fund amounts equal to employees' contributions required under the Public Service Superannuation Act.

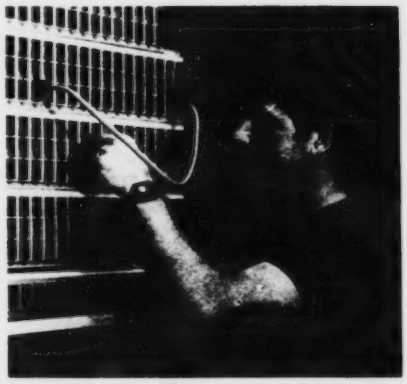
## 12. Comparative figures

Certain comparative figures have been reclassified to conform to the method of presentation adopted in 1983.

# The Shared Data Network

Decentralization of functions and services has been a basic goal of the B.C. Government over recent years. Much decision-making has already been relegated to regional offices throughout the province. This outward shift of responsibility has created a need for better communication by outlying offices with the data bases maintained by BCSC at Victoria. BCSC assumes the task of putting province-wide data communications on a rational, cost-effective basis. The result: a 24-hour shared data network that makes it simpler for the Corporation's clients, and even unmanned detection devices, to communicate with the province's central computing facility. The network, which can be viewed as a utility, makes feasible a number of important government programs.

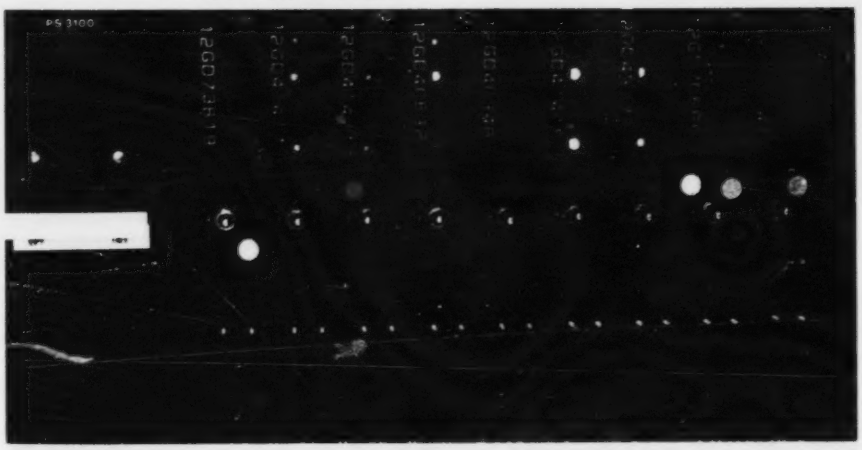
The Network Control Centre is part of BCSC's central computing facility at its Seymour Place headquarters near Victoria. Here, special equipment and software permit the staff to monitor the private leased lines and other telecommunications equipment that make up the network. The Victoria Computing Centre is linked by shared trunk lines leased from CNCP Telecommunications and B.C. Tel to Regional Network Centres (RNC's) in Vancouver, Kelowna, Kamloops, Prince George, Nelson, and Terrace. All but the Vancouver RNC are unmanned with any maintenance or repair work at the interior sites performed by CNCP on BCSC's behalf. BCSC clients, instead of using long-distance lines to connect their terminals and other equipment with the Victoria facility, are linked to the nearest RNC. There are many advantages.



*Network Terminal Operator (N.T.O.) monitoring one of the numerous BCSC circuits via patching units.*

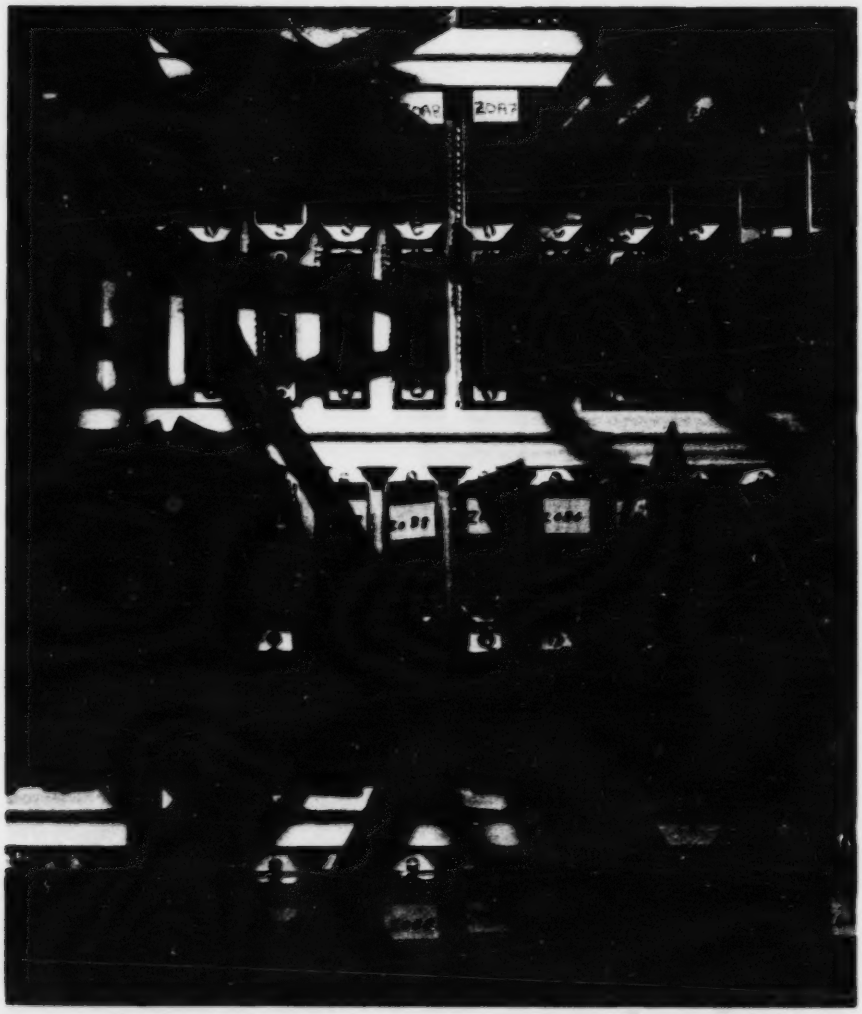
BCSC subsidizes the trunk lines to the RNC's as well as network software and the front ends — the communications equipment that controls access to the large scale IBM 3081 mainframe computers in Victoria. The RNC's include the telecommunications equipment that connects clients to the shared trunk lines. The telephone company's involvement is limited to installing radial links that connect government offices to the RNC's. BCSC clients pay only a local access charge, which varies with the distance from the RNC, to be connected to the network. The actual use of the network is provided at no charge to the client; its costs are covered by mainframe computing revenues. By consolidating government data communications needs this way, BCSC is able to reduce overall costs and provide better, simpler communications service.

*Rack mounted Limited Distance Data sets used in BCSC shared network.*



The network design — radial links from RNC's rather than traditional multi-drop systems — means that BCSC clients do not have to lease expensive full-function modems to get onto the network. It also makes network management easier and less costly to maintain, which is why control can be consolidated at Victoria and all but one RNC can be unmanned. Problems, when they arise, can be isolated more easily and repaired more quickly. Because lines from clients in any area are consolidated at the RNC, BCSC is ready to adapt to whichever trunk technology comes next, including digital radio, satellite transmission or fibre optics. Network design is modular; BCSC can upgrade or downgrade its capability by increments to match demand.

*The back of a modem cabinet showing the cables connecting the data sets to the front end processors.*



The largest RNC, at BCSC's Vancouver offices, uses two remote front ends and parallel CNCP and B.C. Tel trunk lines to give network users data and service protection. If one link fails, the user may notice a brief disturbance, but little else. The system switches from the failed link to the other link automatically. Any data that is on the link when it fails is saved and retransmitted on the other link.

BCSC has introduced other economies by standardizing on network-compatible hardware from qualified vendors. It has adopted IBM's System Network Architecture (SNA) — a layered set of communications standards that offers important advantages. For instance, a single SNA network permits terminals to switch from one host mainframe processor to the other in the event one host fails, and to gain access to other host services. This capability, used to link BCSC's network to ICBC's computers, allows Motor Vehicle Branch offices across B.C. to access data bases on both ICBC and BCSC computers.

The network serves a broad range of government users in most of the Province's ministries. An example of its value is the Lightning Location System, developed jointly by the Ministry of Forests and BCSC, that reports lightning strikes in real time during fire season. This system is feasible because the shared data network eliminates most of the cost of communication with the Victoria computing centre. Another example is the B.C. Assessment Authority CAPAS system, which uses the network to access its central data base of property information from district offices throughout the province.

# Long-Term Care: Data Processing Speeds The Service

The Long Term Care Program (LTC) of the Ministry of Health provides support services to individuals with health problems that affect their ability to live independently. Most recipients of LTC services are elderly. LTC services range from minimal personal care — visits by homemakers to cook a meal or tidy up — to extended care, which may include around-the-clock nursing care in a hospital-like setting. Between these two extremes are services such as in-home visits by nurses or regular attendance at adult day-care centres. The emphasis is on keeping people in their own homes and as independent as possible. Approximately 45,000 people are receiving help under the LTC Program. Of these, approximately 5,000 are wait listed for a move to facility care or an alternate facility. LTC services are provided by Ministry staff and by over 900 non-Ministry organizations, including contracted agencies, and profit and non-profit institutions.

The Ministry of Health has developed, with the help of BCSC, a computer system to assist in the delivery of LTC services. The system was initially developed in 1978, when LTC expenditures were approximately $90 million. Since that time the system has been enhanced and converted to BCSC's IBM mainframe. Current LTC expenditures have increased to $250 million. The existence of the LTC computer system has enabled the Ministry to accommodate the rapid growth in demand for LTC services without proportionate increases in administrative costs.

LTC staff at the Ministry's Local Health Units (LHU's) use display terminals to contact the Victoria computer over BCSC's shared data network. Presently, most LHU's have terminals, with installations planned for the remaining locations.

The LTC system establishes a unique file for each client upon entry of an initial client assessment. The service needs of clients are then matched with LTC service providers. The system maintains information regarding care being provided to each client and the clients being cared for by each provider.

An LTC assessor periodically visits each client receiving LTC services. If the assessor determines that a client requires additional support, for example, attention on a 24-hour basis, the assessment is added to the client's computer file. The system would then wait-list the client for admission to a LTC facility. The status of an individual client or a LTC facility can be obtained from the system in a matter of seconds through the use of a display terminal. The maintenance of this information on a central computer system allows improved response to LTC client needs by matching LTC resources and facilities to these needs.

The LTC system also provides major benefits in the administrative aspects of running the program. Records are always current and laborious paperwork has been reduced to a minimum. The system handles payment to all facilities for services approved and provided, with less clerical effort required in both the Ministry and the facilities. The chance of inaccuracies and errors in these payments has been virtually eliminated through use of this automated payment procedure. It is planned to enhance the system to handle payments to other types of LTC service providing agencies.

The system also can provide an array of management information to aid in the planning and control of the LTC program. Because the system is an integral part of program operations, the information provided is timely and accurate. The availability of this information enables LTC management to better address the demands for LTC services in an optimum fashion.

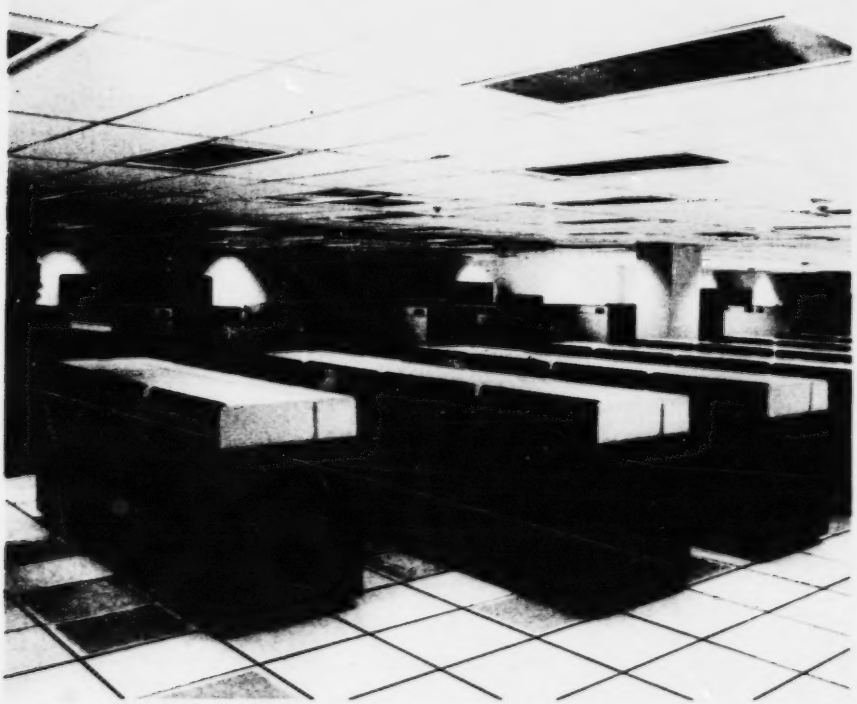
*At the Nanaimo Local Health Unit of the Ministry of Health, Charlotte Caswell (standing) assists Brenda Jones with the use of the Ministry's Long Term Care information system. BCSC developed the system, which gives LHU's provincewide on-line access to complete information by patient and facility.*

# Moving One Of Canada's Largest Computer Centres

This spring, BCSC staff faced a complex technical challenge: the relocation of its entire Data Centre, representing the computing services and data bases of virtually all BCSC clients, from the Davidson Street building to the new Seymour Place facility — with no disruption of service.

To move one of Canada's largest computing centres in little more than an April weekend, without affecting service to any client, obviously called for a great deal of preparation. Planning began October 5, 1981, when ground was broken for the new facility. Fully eighteen months of concerted effort preceded the move. From the five differing strategies developed by the Project Office, senior management of the Information Services Division chose one that called for two minimum operating configurations — that is, the least possible software and hardware considered safe and adequate — at both the Davidson and Seymour facilities during the move. Both were up and operating during the move; each was a mirror image of the other. This allowed for extensive testing (before the move) of such crucial environmental factors as power supply and alarm systems. It also provided a training environment in which BCSC operations people could get accustomed to the new facilities. With the minimum system tested and functioning at Seymour Place, the rest of the Davidson equipment could be moved over.

*'A major portion of the present Direct Access Storage Device (DASD) complex at the new site'.*



Before the actual move, however, and to keep manpower loss to the project at a minimum, the Project Office created four kinds of teams. The Project Control team functioned as a command centre, planning, dispatching, monitoring, and logging all segments of the move. So-called Murphy's teams — also referred to as creative pessimists — looked for potential difficulties in the plan, and developed trouble-shooting solutions. Move teams were made responsible for individual moving operations, including start-up, testing, and production at the new location. A fourth team acted as the interface between Project Control and the move teams, monitoring progress and keeping Project Control informed.

On March 2, 1983, an IBM 3081 D mainframe processor was installed in the Seymour building and upgraded to match the 3081 K processor still at Davidson Street. The equipment for the upgrade arrived at Seymour Place at 8:00 am March 15th. The upgrade, which included the addition of memory, was complete by 10:00 am on March 17th.

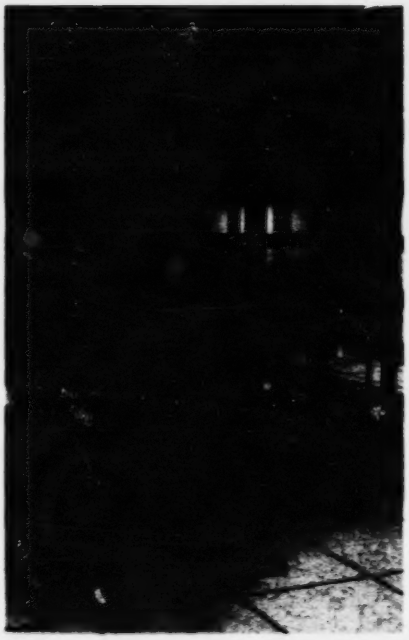
Movement of the data communications Network Control Centre began March 1. About five circuits per day were transferred to equipment at Seymour Place. Plans allowed for each circuit to be down for 30 minutes during the transfer; even during the first few days, however, circuits were down for just five or ten minutes each. Downtime continued to shrink during the move. On March 23, one transfer took just 30 seconds. A year of planning by BCSC and B.C. Tel paid off in an ultra-efficient transition of network circuits.

On Thursday, March 31, at Midnight, batch processing was shut down. Some applications, previously identified as critical, continued to run on the Davidson minimum facility. Next came the move of equipment that would finally transfer all computer operations to Seymour Place.

Nearly 200 people were involved, monitoring progress, tracking start times for staff teams and suppliers, and making sure that people working long shifts had food to eat and a place to sleep.

The schedule called for the Seymour Place centre to be ready for user testing by 3:00 pm on Monday, April 4th. During the weekend, activity stayed fairly steady at two hours ahead of schedule. The system was ready for user testing at 1:05 pm, and was handed over for operational use by the Project Team at 4:00 pm — nearly seven hours ahead of schedule. The move was virtually transparent to BCSC's clients.

One of the major new support services that relocation makes available is the combination of an Uninterruptible Power System (UPS) and an Alternative Power Supply (APS). The UPS consists of 182 continuously-charged lead-acid batteries. It supplies up to 500 KVA for up to 15 minutes after a power failure. Within 20 seconds after the failure, however, one of the APS's 1500 KVA diesel generators is activated; if more power is needed, a second identical generator can be switched on as well. The system provides BCSC's clients with multiple backup protection of data, software, and services in case of a power outage.



*'Shelving (partially erected at left) was soon to hold 47,000 magnetic tapes, packed and moved from Davidson Street, then placed in proper order in the new Seymour Tape Library'.*